

**THE RELATIONSHIP BETWEEN DIRECTOR REMUNERATION AND  
PERFORMANCE OF FIRMS LISTED IN THE NAIROBI SECURITIES EXCHANGE**

**BY**

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**DECLARATION**

This research project is my original work and has not been presented for a degree in any other University.

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This research project has been submitted for examination with my approval as the candidate's University Supervisor.

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**MR. JAMES M. NG'ANG'A**

## **DEDICATION**

To the Almighty God, for His unending Grace.

To my mother Carren, my husband Dr. Raduma, my son George and my daughter Marie, for their unquestionable love that always inspires me.

## **ACKNOWLEDGEMENT**

I would like to thank God for granting me Success in the completion of this research project. Although I am not able to mention all individuals, I am grateful for all the help and contributions from my colleagues and classmates.

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To all I say, may God Bless you in a mighty way.

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## **ABBREVIATIONS**

|        |   |
|--------|---|
| ANNOVA | Analysis of Variance                                  |
| CEO    | Chief Executive Officer                               |
| CMA    | Capital Markets Authority                             |
| EAT    | Earnings After Tax                                    |
| NSE    | Nairobi Securities Exchange                           |
| OECD   | Organization for Economic Cooperation and Development |
| PWC    | PriceWaterhouse Coopers                               |
| ROE    | Return on Equity                                      |
| UK     | United Kingdom  |
| US     | United States of America                              |

## ABSTRACT

The agency problem has been a source of great interest in corporate governance to both industry and academic researchers. Various proposals have been advanced to resolve the agency problem, with most of the suggestions having been incorporated into corporate governance principles and best practices that companies are encouraged to apply. However, despite advances in development of corporate governance best practices, the agency problem still persists. In Kenya, companies that are listed on the Nairobi Securities Exchange are required to comply with the corporate governance principles that are issued by the capital markets authority, which require management remuneration to be based on performance. The purpose of the study is to establish the relationship between management remuneration and firm performance for companies that are listed on the Nairobi Securities Exchange. The study adopted a descriptive research design. The population of the study was the companies listed at the Nairobi Securities Exchange. Data was obtained from published audited financial statements covering the period between 2006 and 2010. Regression analysis demonstrated a positive link between management remuneration, ROE, EAT and Tobin's Q as measures of firm performance. The study concludes that among Kenyan companies, management remuneration has a weak relationship with ROE and Tobin's Q, but a moderately strong, positive relationship with EAT. The implication of this finding is that, among Kenyan listed companies, directors remuneration is strongly linked to raw performance indicators as opposed to measures of efficiency of utilization of shareholder funds and market performance. These findings therefore point towards high possibility of agency problem since directors can benefit themselves by maximizing raw earnings without due regard to long term performance and market performance.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the study

Most large businesses today are run as companies which are distinct legal entities from the owners (often referred to as shareholders). Since it may not be possible for all the shareholders to take part in the management process, they appoint directors to act on their behalf, giving rise to a Principal-Agent relationship and subsequently the agency problem (Bebchuk and Fried, 2003).

The agency problem arises when the directors benefit from the company at the expense of the shareholders by designing remuneration packages where they award themselves very high salaries and other benefits that may reduce profits that are available for distribution to the shareholders (Jensen and Meckling, 1976). This happens because the directors are in a strategic position in the organization structure to influence their pay (Bratton, 2005). According to Bebchuk and Fried, 2003, the Directors' remuneration, if not well structured, will actually contribute to the agency problem.

Linking directors' remuneration to corporate performance should be seen as fair to the shareholders, as directors, especially involving executive directors' remuneration packages, are rewarded based on their individual and corporate performance. Various studies have been carried out in various countries across the world to establish the link. For instance, in the UK many studies have sought to examine whether such a link indeed exists, with top director's remuneration being the focus (Gregg et al., 1993 and Conyon and Leech, 1994). Their evidence shows that corporate growth is an important determinant of top director's remuneration. Main et

al. (1996) show a positive and significant relation between the total board remuneration and the firm's performance.

### 1.1.1 Directors' remuneration

There has been a lot of discussion and debate on Directors' remuneration in several countries including the US (Gibbons and Waldman, 1999), Europe (Eichholtz, Kok, and Otten, 2008) and lately in Asia (Chan, 2008). In some cases such as those of Enron, WorldCom and Parmalat, the collapse of companies have been attributed to excessive pay to directors, fraud and manipulation of financial statements.

There are various proposals to resolve the agency problem, most of which are in a set of corporate governance principles that companies are encouraged to apply and in some countries, they are enforced through legislation. One of the proposals is the appointment of a remuneration committee responsible for designing the Directors' remuneration for the company (OECD, 1999). This committee is expected to base the Directors' remuneration on company performance (Bebchuk and Fried, 2004). This approach is mainly aimed at aligning directors' interests to those of the shareholders. Basing Directors' remuneration on company performance is expected to motivate the directors to perform well so as to increase their own pay, while at the same time the shareholders benefit (Bebchuk and Fried, 2004).

Various studies have however criticized the principle of basing the Directors' remuneration on company performance. One of the arguments against this principle is that firm performance is influenced by several factors, arising from both internal and external sources to the company (Rosen, 1992). Another argument is that it is difficult to identify the main parameters of performance. Kaplan and Norton (1992) argue that businesses tend to lay emphasis on

quantitative performance measurement metrics, while factors like consumer satisfaction and innovation are also equally important areas of analyzing firm performance.

Kerin (2003) also argues that firms must have a balance between fixed and variable pay to executives. A fixed pay ensures that directors get some pay whether or not the company performs well, since they will have rendered services to the company. Furthermore, the directors assume some additional risk in relation to management of the firm when they decide to act as agents for shareholders (Jensen and Meckling, 1976; Jensen and Murphy, 1990). The variable component is the amount that should relate to performance for example bonuses, profit sharing and options. Additional studies have however shown that besides performance, other factors such as experience, age, and qualification, should also be considered in determining Directors' remuneration, so that firms can hire the services of talented executives. In addition to the agency problem, high Directors' remuneration is also due to greed by executives and weak governance by shareholders (AKST, 2006).

A number of past studies have suggested various possible ways through which directors' remuneration may influence firm performance. Directors' remuneration can be used to attract competent executives, as well as improve the performance of the firm. It is therefore likely that the debate on Directors' remuneration will continue. In surveys of Directors' remuneration, Core et al. (2001) identified the greatest concern of shareholders as the degree to which Directors' remuneration aligns top executives' interests with those of their shareholders. This concern has spawned a large body of research evidence on the relationship between the general structure of Directors' remuneration and corporate performance. However, there is a lack of evidence about the extent to which corporations are prepared to publicly disclose details about their executives' remuneration contracts or packages and annual changes in the values of entitlements and payouts

under these packages. The study expects that directors' remuneration is directly correlated with firm performance.

### 1.1.2 Firm performance

There has been growth in the practice of providing performance incentive payments to top executives in the form of company share rights and options rather than cash bonuses. Share options have been the fastest growing component of CEO compensation in the USA (Core et al. (2001). The literature employs a number of different measures of firm performance to test agency cost hypotheses. These measures include financial ratios from balance sheet and income statements (Cole, and Lin 2000), stock market returns and their volatility (Cole and Mehran 1998), and Tobin's q, which combines market values with accounting values (Zhou, 2001).

It has been argued that profit efficiency, i.e. frontier efficiency computed using a profit function, is a more appropriate measure to test agency cost theory because it controls for the effects of local market prices and other exogenous factors and because it provides a reasonable benchmark for each individual firm's performance if agency costs were minimized. Profit efficiency is superior to cost efficiency for evaluating the performance of managers, since it accounts for how well managers raise revenues as well as control costs and is closer to the concept of value maximization. Although maximizing accounting profits and maximizing shareholder value are not identical, it seems reasonable to assume that shareholder losses from agency costs are close to proportional to the losses of accounting profits that are measured by profit efficiency (Zhou, 2001).

In the light of the above and following common practice in the literature, the present study uses Tobin's Q ratio as a measure of firm performance, defined as the sum of the market value of



common equity and total debt divided by total assets. Tobin's Q has been widely used by many academic researchers in studies related to corporate governance and firm performance (Choi et al., 2007). Firm performance is expected to have a direct relationship with director's remuneration.

## 1.2 Research problem

Many countries across the world have been faced with corporate scandals of different magnitudes with the most publicized recently being the Henron scandal (2001) and Lehman brothers (2008). This has served to highlight the reality of the agency problem and has led to growing interest in research in the field of corporate governance and firm performance. Consequently, the interrelationships between various aspects of corporate governance such as board composition, Directors' remuneration, and other corporate governance mechanisms have been widely investigated (Denis and McConnell, 2003). Attention has been given to the influence of compensation packages on corporate governance effectiveness, board monitoring, and the structure of the organization. There is evidence that agency problems can be mitigated through the design of Directors' remuneration contracts, coupled with certain corporate governance mechanisms, including the composition of board of directors and existence of a remuneration committee (Pukthuanthong et al., 2004).

Several past studies have examined the relationship between Directors' remuneration and firm performance. However, most of the studies on firm performance have focused on companies in developed countries such as the US, some European countries (Spain and Germany), and Asia. Some studies have examined the relationship between Directors' remuneration and firm performance, such as Joskow and Rose, 1994; Kubo, 2001; Kato and Long, 2006; and Buck, Liu

and Skovorada, 2008. Other studies show a weak positive relationship between Directors' remuneration and firm performance (Kubo, 2001; Hassan, Christopher and Evans, 2003; Okzan, 2007).

Locally, there is little literature on the relationship between firm performance and director remuneration. Pricewaterhouse Coopers carried out a survey in 2007, and another one in 2009 on Chief Executive Officers' salaries. According to the surveys, the Directors' salaries are on the increase, with the highest paid CEO earning a basic pay of Kshs. 2.53 million per month in 2007 and Kshs. 3.9 million per month in 2009. Thus despite the above studies, there is still a gap in knowledge as to the relationship between Directors' remuneration and firm performance in the context of a developing country like Kenya.

The study therefore seeks to determine the relationship between Directors' remuneration and firm performance for companies listed on the Nairobi Stock Exchange in line with current trends in corporate governance relating to directors remuneration. The study provides empirical evidence on the status of Directors' remuneration for companies listed on the NSE.

### **1.3 Objectives of the study**

The main objective of the study is to determine whether there is a relationship between Directors' remuneration and firm performance for companies listed on the NSE.

The specific objective is to determine the relationship between firm performance and Directors' remuneration.

### **1.4 Significance of the study**

The study is of relevance to the following:

## **Investors**

According to Fischer and Merton (1985), a well functioning stock market is a prerequisite for economic growth, since it avails capital that is essential for businesses. When investors purchase the shares or loan stocks issued by the firms, they provide capital to those firms. The investors consider the firm's ability to pay back the principal, as well as the return they will get from the firm in the form of dividends and interest, when deciding on whether to provide the capital or loan. Firm performance is therefore a key consideration for investors (Brown and Reilly, 2009). One of the recommended strategies that can be adopted by firms to improve performance is basing Directors' remuneration on firm performance.

The study provides an important framework for investors to consider Directors' remuneration in firm performance.

## **Firms and remuneration committees**

The study aims at contributing to existing knowledge on Directors' remuneration, with major emphasis on Kenyan companies. It highlights the current situation on Directors' remuneration for local companies and tries to establish whether companies and remuneration committees are complying with current corporate governance practices on remuneration.

## **Regulators**

The findings of the study can be used by local regulators and other professional bodies as a reference for policy guidelines (e.g. disclosure) on Directors' remuneration. The study provides a good foundation for making comparisons between firm performance and Directors' remuneration and a means of enforcing good corporate practices.

### **Academicians and researchers**

Directors' remuneration is a major area of discussion and research and research, and the study contributes by providing additional dimensions about Directors' remuneration in Kenya.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter is composed of four main parts. The main theories and principles that underlie Directors' remuneration, mainly agency theory and corporate governance, are contained in the first part. The various studies regarding Directors' remuneration and firm performance are analyzed in the second part. The main features of the NSE are discussed in the third part, while the theory and key concepts are summarized in the theoretical and conceptual framework in the fourth part.

#### 2.2 Theoretical review

##### 2.2.1 Agency theory and corporate governance

According to Smith (1776), shareholders of joint stock companies need to appoint directors to manage the companies on their behalf, since such companies have many shareholders. This would result to a Principal-agent relationship where the shareholders are referred to as the principals while the directors are the agents. Although Jensen and Meckling (1976) argue that a Principal agent relationship also arises when the shareholders borrow and hence act as agents of the lenders, this paper narrows the principal-agent relationship to that between shareholders and directors.

Smith (1776) explains that the agency problem arises because directors are most likely to put their interests first rather than act for the benefit of the shareholders. According to Berle and Means (1932), the main factors that lead to the agency problem are the separation of ownership

and control, and asymmetric information between shareholders and executives. The information asymmetry enables managers to use their discretion to benefit their private interests in various ways. Williamson (1964) gives an example of such ways as when managers engage in empire building, while Jensen (1986) gives an example of when the directors fail to distribute excess cash when the firm lacks profitable investment opportunities.

According to Jensen and Meckling (1976), the agency problem has made it necessary for shareholders to effectively monitor the directors, and thus incur agency costs. A firm whose ownership is highly dispersed incurs very high agency costs, thus making the monitoring process more challenging.

The agency theory was criticized by Perrow (1986) for being excessively narrow and having few testable implications. According to him, additional research should be carried out to include other important issues such as managerial behavior.

Corporate governance and Directors' remuneration linked to performance are the two main approaches recommended to assist in the effective monitoring of the board (Fama & Jensen, 1983; Kosnic, 1987; Pearce, Stevenson & Perry, 1985; Shavell, 1979; and Ungson & Steers, 1984). Some propositions have been made by various authors on the definition of corporate governance. According to Garvey and Swan (1994), governance normally determines how a firm's top decision makers manage the explicit and implicit contracts that make up the firm.

According to Shleifer and Vishny (1997), corporate governance deals with the assurance that providers of finance to firms get of a return on their investment. Caramanollis-Cötelli (1995) also explains that fair allocation among stakeholders within and outside the firm determines corporate governance. Stakeholders include shareholders, suppliers, creditors, employees, customers, and

the general public. According to John and Senbet (1998), corporate governance deals with mechanisms by which stakeholders of a business protect their interests by exercising control over the management.

The organization for Economic Cooperation and Development – OECD, (1999) relates corporate governance to the internal means by which organizations are operated and controlled. According to Bocean and Barbu, in order to build market confidence and encourage more stable and long term international investment flows, good corporate governance is a crucial requirement. Better corporate governance practices are seen by many countries as a way of enhancing overall economic performance by improving economic dynamism. This has resulted in many countries encouraging corporate governance principles and even making them mandatory through legislation, and enforcing compliance by regulators. Equitable treatment of all shareholders, enhanced disclosure requirements, communication with the shareholders, and an effective board of directors, is some of the important principles of corporate governance (OECD, 1999). The firm has to consider fair remuneration for its directors that is based on firm performance, in order to discharge its duties effectively.

### **2.2.2 Tournament theory**

Tournament theory argues that systems are desirable when monitoring is either unreliable or costly (Lazear and Rosen, 1981). Instead of using monitoring and supervision to enforce the implicit employment contract, the firm should rely on a self-enforcing reward structure. The appeal of successively higher salaries motivates employees to devote greater attention to organizational interests at all job levels and discourages shirking. However, contracting theories focus on the alignment of individual interests with those of the organization, because

organizational shirking is more than effort aversion. An employee can expend a great deal of effort, but if it is not in the interests of the organization, shirking exists. In agency theory terms, the principal wants not only the agent's effort but the right kinds of effort (McMillan, 1992).

Tournament structures have several important features. First, prizes are set before the tournament begins and are awarded based on the rank order at the finish, not the absolute performance of the participants. This corresponds to a fixed salary structure that does not vary with individual employee productivity in a particular job, as would a piece-rate or bonus system. Second, the absolute spread between the payoffs for each rank should affect the efforts of the participants (Lazear, 1991), since, as the salary structure becomes more compressed, there is less incentive to expend the effort required to achieve the next rank. Finally, any incentive system is likely to be an incomplete contract that may not only fail to encourage the full range of desirable behaviors but may elicit undesirable behavior as well.

### **2.2.3 Stewardship Theory**

Stewardship theory has its roots from psychology and sociology and is defined by Davis, Schoorman & Donaldson (1997) as "a steward protects and maximizes shareholders wealth through firm performance, because by so doing, the steward's utility functions are maximized". In this perspective, stewards are company executives and managers working for the shareholders, protects and make profits for the shareholders. Unlike agency theory, stewardship theory stresses not on the perspective of individualism (Donaldson & Davis, 1991), but rather on the role of top management being as stewards, integrating their goals as part of the organization. The stewardship perspective suggests that stewards are satisfied and motivated when organizational success is attained.



#### **2.2.4 Theory of the firm**

The theory of the firm consists of a number of economic theories that describe, explain, and predict the nature of the firm, company, or corporation, including its existence, behavior, structure, and relationship to the market. However, of relevance to this study are the managerial and behavioral theories.

Williamson (1966) suggests that managers would seek to maximize their own utility and consider the implications of this for firm behavior in contrast to the profit-maximizing case. He suggested that managers' interests are best served by maximizing sales after achieving a minimum level of profit which satisfies shareholders. More recently this has developed into 'principal-agent' analysis which models a widely applicable case where a principal (a shareholder or firm for example) cannot costlessly infer how an agent (a manager or supplier, say) is behaving. This may arise either because the agent has greater expertise or knowledge than the principal, or because the principal cannot directly observe the agent's actions; it is asymmetric information which leads to a problem of moral hazard. This means that to an extent managers can pursue their own interests. Traditional managerial models typically assume that managers, instead of maximizing profit, maximize a simple objective utility function (this may include salary, perks, security, power, prestige) subject to an arbitrarily given profit constraint (profit satisfying).

#### **2.2.5 Directors' remuneration and firm performance**

Directors' remuneration is invariably and closely linked to the issue of corporate governance. Good and sound corporate governance should constrain excessive payments being made to directors and remuneration should be largely determined by the firm's performance.

Nonetheless, no prescription on how to determine the directors' remuneration is provided by corporate governance principles or best practice. Rather, the board through the remuneration committee, should design a remuneration package that is capable of attracting and retaining executive directors of good caliber (Greenbury, 1995). Thus while in the eyes of the shareholders, remuneration should be designed in such a way as to maximize firm performance, sometimes other factors come into play.

The relationship between firm performance and directors' remuneration can be seen from two perspectives. The first perspective involves the decision to base director's remuneration on firm performance. In this case, it would be expected that there is a very high correlation between the two. The second perspective is the residual effect of remuneration packages on firm performance. If the remuneration is attractive enough, the company can bring in talent that can lead to better management of the firm. Further, rewarding directors based on performance can also motivate them to perform better.

Directors' remuneration packages should be attractive enough to attract and retain the directors who have the capacity required to manage the company successfully and that the structure of the packages for the executive directors should be tied to the corporate and individual performance.

The remuneration of non-executive directors, on the other hand, should reflect individual director's experience and the level of responsibilities in the company. Each firm is required to maintain a remuneration committee mainly or wholly composed of non-executive directors, whose tasks being to make recommendations to the board the remuneration of the executive directors. Finally, decisions relating to the remuneration of non-executive directors lie, on the other hand, with the board as a whole. Thus while performance is seen as a major determinant, it

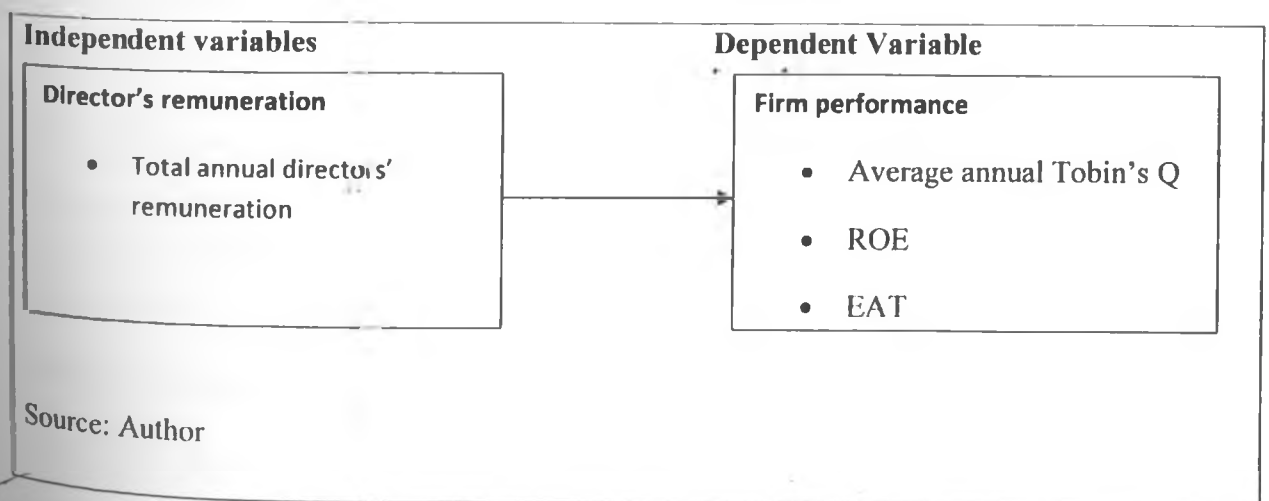
is not always true that remuneration is wholly or even partially based on performance (Abdullah, 2006).

There have been some studies carried out to establish the threefold relationship between corporate governance, firm performance, and Directors' remuneration. According to Lee, Lev and Yeo (2008), the relationship between corporate governance and firm performance is a positive one such that better performance is seen in the firms that have a more effective corporate governance structure than those with a less effective structure. The study also established that agency costs are reduced and firm performance improved by a good Directors' remuneration package. However in most Chinese companies, it was established that Directors' remuneration that is tied to performance is not promoted by corporate governance measures such as independent board.

### 2.2.6 Conceptual framework

The following model displays the independent and dependent variables in the study. A brief discussion then follows on how each of the variables will be measured.

Fig 1: Conceptual framework



## **Directors' remuneration**

This will be measured with the using the total annual directors' remuneration as reported in the annual accounts of the listed companies.

## **Firm performance**

The present study uses Tobin's Q ratio, Return on Equity (ROE) and Earnings after Tax (EAT) as a measure of firm performance. Tobin's Q is defined as the sum of the market value of common equity and total debt divided by total assets. Tobin's Q has been widely used by many academic researchers in studies related to corporate governance and firm performance (Choi et al., 2007). Return on Equity is given by Earnings after tax divided by shareholders' equity.

### **2.3 Empirical review**

There have been several studies carried out in the areas of Directors' remuneration, how to measure firm performance, and whether performance based pay is effective.

#### **2.3.1 Types of Directors' remuneration**

According to Carola and S: ks (2005), the compensation that is paid to the directors when they carry out their management role in the firm is referred to as Directors' remuneration, which has increased over the past two decades, leading to a lot of attention by stakeholders. Excessive pay to executives has made Directors' remuneration part of the agency problem rather than a solution (Bebchuk and Fried, 2003).

The center for corporate governance formulated principles of corporate governance in 1999, where they suggest that a remuneration committee should be formed to design the Directors'

remuneration. Such a committee will often use the services of management consultants and other experts coupled with market surveys in designing the Directors' remuneration.

Fixed payments, short-term incentives, long-term incentives, entry benefits, exit benefits, and non-pecuniary benefits should all be included in a good mix of Directors' remuneration (Kerin, 2003). Payments that are not affected by the firm's performance, such as basic salary and other fringe benefits like health cover, car, and school fees, are referred to as fixed payments. Payments that are contingent on the achievement of one or more short-term targets such as profit after tax, earnings per share, return on capital employed, return on equity, or more specific targets such as cost reduction or sales growth, are referred to as short-term incentives, and are normally paid in the form of cash bonuses.

Inducements to achieve longer term targets generally related to shareholder value creation over three to five years, are referred to as long-term incentives, and are typically provided through the award of shares and/or options. Payments to induce a potential CEO candidate to accept the position, such as sign-on bonuses or 'golden hellos' are referred to as entry benefits, and are normally paid in cash or an award of shares and/or options. Payments aimed at inducing a CEO to leave the firm are referred to as exit benefits.

There are times when special-purpose compensation elements are offered, for example retention bonuses, also referred to as 'golden handcuffs', are often offered to lock in key executives for a period of time after a merger or acquisition. According to Kerin, 2003, non pecuniary benefits such as club membership, enjoyment of the job, the respect of employees, and prestige often have more influence on the behavior of executives as compared to other incentives, and these normally form part of the golden handcuffs. Shavel (1979) argues that the executives assume

greater risk when they add control to ownership of a firm, therefore the fixed payment is more important than most of the others.

### **2.3.2 Determinants of Directors' remuneration**

Conlon and Parks (1988) and Fama (1980) argue that when Directors' remuneration is linked to firm performance, both the executives and the shareholders will benefit in the long run. In addition to firm performance, remuneration committees should consider the directors' experience, age, and qualifications, both academic and professional (Combs and Skill, 2003). A study of top 45 executives in US by Hogan and McPheters (1980) found a significant positive relationship between Directors' remuneration and firm performance, experience and age. A positive relationship, though not significant, was however found between Directors' remuneration and qualification. Tax implications, which could play a significant role in the pay based on performance, should be considered by the remuneration committee (Rose and Wolfram, 2002).

A research study carried out by Boyd in 1996 on US firms summarized key determinants of Directors' remuneration such as firm size, firm profitability, equity ownership by directors, and resource richness of the board, in addition to the experience, age, qualification and tax. Boyd explained that as expected, firms with large size, high profits, smaller shareholder concentration and competent board had higher Directors' remuneration.

In the public sector, performance contracting is done to ensure that a director performs to the highest expected level. The PCS Group (2005) explains that under performance contracting, the contract of the officer is designed to ensure some quality measurable objectives can be achieved,

and rewards are based on the result. The scope of this study does not include this area of discussion.

### **2.3.3 Challenges of implementing a compensation scheme**

Implementing a compensation scheme that is tied to firm performance faces several practical challenges such as:

The first challenge has to do with Directors' remuneration packages. Most firms would want to have attractive Directors' remuneration packages that would be appealing to talented executives (Murphy, 1997). Lazear and Rosen (1981), in their tournament theory where executives compete for promotion and rewards, some firms would like to be the best in terms of remuneration. Promotion and high compensation is won by high performing executives, therefore the initial package when hiring executives is not based on performance, but is meant to attract the executives. When the contract commences, performance becomes an important factor in remuneration, and the firms also consider other influences like employee unions, shareholders, regulators and politicians' concerns over the Directors' remuneration (Lazear and Rosen, 1981).

The second challenge is lack of a benchmark against which performance can be evaluated (Gibbons and Murphy, 1990). The balance score card by Kaplan and Norton (1992) is one of the different tools of performance evaluation suggested by several authors. Under the balance score card, performance should be qualitative as well as quantitative. The qualitative aspects include customer, learning and growth, and improvements on internal business processes, while the quantitative aspect is financial performance. Tools such as the balance score card only provide a wider framework of evaluating managerial performance, but there is still a lot of subjectivity in awarding the scores (Gibbons and Murphy, 1990).

The third challenge is difficulty in measuring firm performance. None of the several recommended measures seem to be satisfactory (Bacidore, Boquist, Milbourn, and Thakor, 1997). According to Rosen, 1992, performance measurement is one of the various factors that complicate optimal compensation. There are generally three categories of studies of pay for performance. The first category is made up of studies which focus on market based measures, mainly the market price per share or price earnings ratio (Jensen and Murphy, 1990; Barro and Barro, 1990; Hubbard and Palia, 1994).

The fourth challenge is the time horizon. This is challenging since the executives are expected to take decisions that increase shareholders' wealth in the long-run, while the pay based on performance looks at short term profits (Hall and Murphy, 2003).

The fifth challenge is falsification of accounting reports to show good performance. A situation where the executives tend to report a better performance and position than the true and fair position is referred to as creative accounting (Peng and Röell, 2008).

The sixth challenge is the management aversion to risk. Hall also argues that the ability of a firm to perform well even if there is a profitable but risky project may be limited by the risk avoidance nature of most executives.

The seventh challenge is undue influence on committee decisions. According to Sridharan, 1996, another challenge in Directors' remuneration based on performance is that the executives normally have undue influence on the remuneration committee, thus influencing their own pay.



#### 2.3.4 Results of past studies

Several studies have been carried out by many authors in the area of Directors' remuneration and firm performance. Some studies have focused on accounting based measures that rely on the firm's financial statements or accounting measures such as sales growth, profit margins, return on capital employed and others (Antle and Smith, 1986; Lambert and Lacker, 1987).

Other studies have covered both accounting and stock market returns (Sloan, 1993; Crepsi-Cladera and Gispert, 2003). According to Sloan, 1993, both accounting and stock market returns should be incorporated in a robust measurement of firm performance. Financial indicators are not important on their own when measuring firm performance, but additional dimensions of customer focus, learning and innovation should be included.

Studies carried out between Directors' remuneration and firm performance have shown mixed results. Some of the studies that found positive relationships are highlighted below.

A strong positive relationship between CEO pay and firm performance measured by both accounting and market returns, was shown by a study carried out by Joskow and Rose (1994), which focused on US CEO salaries from 1970 to 1990. A positive but weak relationship was found between Directors' remuneration and firm performance in a study carried out by Hassan, Christopher and Evans in 2003, in which a sample of 100 listed companies in Malaysia was analyzed.

A strong positive relationship was found between Directors' remuneration and firm performance as measured by stock market returns for UK firms in a study carried out by Kubo in 2001, but a similar study carried out on Japanese firms showed a weak positive relationship. An additional study carried out by the same researcher in 2005 on 210 listed Japanese firms using the

regression model found a weak negative relationship between Directors' remuneration and firm performance. Corporate governance factors were highlighted by the first study as having played a big role in influencing the outcome.

A strong positive relationship was found between Directors' remuneration and firm performance in a study carried out by Kato and Long in 2006, in which a sample of companies listed in China was analyzed. This study mainly focused on how corporate governance practices influence firm performance.

The finding of the study by Kato and Long in 2006, where there was a strong positive relationship was confirmed by another study by Buck, Liu and Skovorada in 2008, which analyzed a sample of Chinese listed companies. The authors in this study found that firm performance and Directors' remuneration mutually affect each other.

Some of the studies have shown a weak positive relationship between CEO pay and firm performance. For instance, a positive but weak relationship was found between Directors' remuneration and firm performance in a study carried out by Okzan in 2007, in which a sample of 390 UK companies quoted on the Financial Times Stock Exchange between 1999 and 2005 was analyzed.

Other studies have shown no relationship between CEO pay and firm performance. No relationship was found by studies carried out by Brunello et al. in 2001 on Italian data; Randhoy and Nielsen in 2002 on Norwegian and Swedish firms. A similar conclusion was reached by Fernandes in 2008 based on a sample of Portuguese firms.

Some of the studies have shown a negative relationship between CEO pay and firm performance. A negative relationship between pay and performance was found by Duffheus and Kabir in 2007 in a study on Dutch firms.

Different dimensions to the relationship between firm performance and Directors' remuneration have also been introduced by some studies. The positive relationship between Directors' remuneration and firm performance, and the relevance of governance structure in the power of the compensation-performance relationship was confirmed by a study by Cladera and Gilbert in 2003, which analyzed a sample of large Spanish firms.

A study by Aditya, Debashish and Krishnakumar in 2006 on a sample of Indian companies by using a regression model found that the key determinant of Directors' remuneration was firm size. Another study by Shah, Javed and Abbas in 2009 on a sample of 144 companies listed on the Karachi Stock Exchange for the period between 2002 and 2006 also found that there was a weak positive relationship between Directors' remuneration and firm performance, and that the key determinant of Directors' remuneration was size.

A link was found between underperformance and excessive Directors' remuneration in a study by Brick, Palmon and Wald in 2005. This partially supports the argument by Berchuk and Fried (2003) that high Directors' remuneration may be counterproductive.

In Kenya some surveys on salaries have been done, the most recent being a survey by PricewaterhouseCoopers (PWC) in 2009. The survey showed that the top ranked CEO in the financial services sector, which is the highest paid, was earning a total of ksh. 3.9 million up from ksh. 2.5 million in 2007. According to the report of the survey, the average cost of employing a CEO in Kenya had increased by 30.7% since 2007.

Most of the studies have focused on companies in developed countries in the U.S, Europe, and Asia, and the results have been mixed with some being contradictory. The recent surveys by PWC also did not highlight the key components of Directors' remuneration, factors that influence the pay and the situation about NSE companies. They also focused on key management personnel and chief executive officer rather than the directors, which is the focus of this study.

#### **2.4 Summary and Conclusion of the literature review**

The literature review has helped bring out the factors that influence the determination of directors' remuneration. These factors include firm size, firm profitability, equity ownership by directors, and resource richness of the board, in addition to the experience, age, qualification and tax. The literature has also shown that directors' remuneration is linked to the agency problem and that proper management of remuneration can help mitigate the agency problem. A number of challenges in developing and implementing good directors' remuneration policy were also identified. The main challenges include lack of benchmarks, need for attractive packages and difficulty in measuring firm performance. Past studies have resulted in varying results on the relationship between directors' remuneration and firm performance. While some studies have shown a strong positive relationship, others have shown weak or no direct relationship. Most studies have come up with firm size as a key determinant of director's remuneration. The lack of consensus among the past studies indicates that the issue remains unresolved. Further, it is quite evident that empirical studies based in Africa are lacking since most of the studies done were based on developing countries and emerging economies like India and China. Thus there is need to further investigate the relationship between directors' remuneration and firm performance.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter provides the methods that are used to address the objectives and research questions. These include the research design, target population, sample and sampling methods, data collection methods and procedures, and data analysis procedures.

#### **3.2 Research Design**

The study is cross sectional and longitudinal. In establishing the relationship between Directors' remuneration and firm performance, a firm's financial performance and share price were analyzed from the year 2006 up to 2010. The firms are analyzed during this period being the latest to establish the current position about Directors' remuneration and firm performance. The period of five years is selected so as to establish the trend over a reasonably long period of time. The firms are also analyzed to establish whether there is relationship between remuneration and firm size as measured by Revenue, Total Assets and Total Equity.

#### **3.3 Population**

The population is the companies listed on the NSE, due to the fact that such companies are required to comply with corporate governance rules (CMA, 2002).

As of December 2009, there were 56 listed companies (NSE Handbook, 2009) although 3 companies had their trading suspended i.e. Hutchings Biemer Ltd, Uchumi Supermarket Limited and Carbacid Investment Ltd. The listed companies were at the time classified into the three main categories (see appendix 1) namely: the main investment market, alternative investment

market and the fixed income segment. The main investment segment had four categories namely: agricultural, commercial & services, finance & investments and Industrial & allied. The list of the companies was obtained from the NSE website.

### **3.4 Sample and Sampling method**

As explained in the literature, there was no need to sample because the main objective was to use all the 58 listed companies.

### **3.5 Data collection methods**

Secondary data was used to find out directors' remuneration. The main source of information was the financial statements of the companies that are published annually and posted in the company websites. These were obtained from the Nairobi Securities Exchange. Some financial statements were obtained online.

### **3.6 Data analysis**

Both regression analysis and bivariate correlation analysis were used. The Directors' remuneration was regressed with firm performance which was measured using average annual Tobin's Q, ROE and EAT. Regression analysis was preferred since it is able to provide not only the relationship between two or more variables (whether positive or negative), but also information on the strength of the relationship (Johnson and Kuby, 2007).

From the regression equations the coefficient of determination was used to determine the strength of the relationship. Standardized coefficients were used to determine the comparative explanatory power, direction and significance of the explanatory variables in the regression

models (see equations i and ii below). The nature of the relationship (i.e. whether positive or negative) was indicated by the sign before  $\beta$  in the equation.

The models applied were of the following general form:

$$Y = \beta_0 + \beta_1 X \dots\dots\dots (i)$$

$$Y = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n \dots\dots\dots (ii)$$

Where Y = Dependent variables

$X_i$  = Independent variable

## CHAPTER FOUR

### DATA ANALYSIS RESULTS, FINDINGS AND DISCUSSIONS

#### 4.1 Introduction

This chapter presents a systematic presentation of data, data analysis results, findings and discussions. The chapter is organized as follows: first, it presents the profile of the companies involved in the study. It then presents descriptive statistics of the data followed by correlation and regression analysis.

#### 4.2 Distribution of companies by sector

The study targeted all the 57 listed companies at the Nairobi stock exchange and sought to obtain director remuneration and performance indicators from the financial statements from year 2006 to 2010. However, out of the 57 companies, only 44 (representing 77.2%) had complete information available (see Appendix 2 for a listing of the companies). The other 22.8% either published abridged versions of their statements hence had incomplete information or their financial statements could not be accessed by the researcher. The table below shows the distribution of companies involved by sector.

Table 4.1: Distribution of companies by sector

|                               | Frequency | Percentage |
|-------------------------------|-----------|------------|
| Agriculture                   | 3         | 7%         |
| Commercial & services         | 10        | 23%        |
| Financial & Investments       | 14        | 32%        |
| Industrial & allied           | 15        | 34%        |
| Alternative investment market | 2         | 5%         |
| Total                         | 44        | 100%       |



From the table above, majority of the companies represented (34%) were from the industrial and allied sector followed by 32% from the financial and investments sector. The alternative and investments sector had the least proportion at 5% of the sample.

### 4.3 Descriptive statistics

#### 4.3.1 Descriptive statistics for all sectors in the NSE

Descriptive statistics were computed for both Director's remuneration and the three measures of firm performance. The results were as shown in table 4.2 below.

**Table 4.2: Descriptive statistics for Directors remuneration and firm performance indicators for all companies in the NSE**

|                                 | N   | Minimum        | Maximum       | Mean         | Std. Deviation |
|---------------------------------|-----|----------------|---------------|--------------|----------------|
| Directors' remuneration ('000') | 174 | 871.00         | 447,000.00    | 58,755.94    | 64,880.99      |
| ROE (%)                         | 211 | (70.45)        | 52.43         | 16.86        | 13.55          |
| EAT ('000')                     | 211 | (4,083,000.00) | 15,148,038.00 | 1,600,323.49 | 2,435,753.17   |
| Tobin's Q                       | 212 | 0.44           | 5.67          | 1.54         | 0.93           |
| Valid N (listwise)              | 173 |                |               |              |                |

From the table 4.2 above, Directors' remuneration had a minimum of KES 871,000, Maximum of KES 447 million and an average of KES 58.8 million in the five years from 2006 to 2010. The standard deviation of 64 million showed that there was a high level of variation of directors' remuneration from the mean indicating that while some companies paid very high levels, others paid very small values as indicated by the minimum and maximum paid.

Regarding the three performance indicators, ROE ranged from a low of -70.45% to maximum of 52.43% with an average of 16.86% and a standard deviation of 13.55. Similarly, EAT displayed a similar distribution with a low of - 4 billion, a high of 15.1 billion and a mean of 1.6 billion. The Earnings displayed a wide dispersion from the mean as represented by a high standard deviation of 2.4 billion. Finally, Tobin's Q ranged from 0.44 to 5.67 with a mean of 1.54 and a standard deviation of 0.93.

#### **4.3.2 Comparative means for Directors' remuneration and performance indicators by sector**

The study sought to compare the means for both the dependent variable and each of the independent variables by sector. The results were as shown in the table below.

**Table 4.3: Descriptive statistics by sector**

| Sector                        |                | Directors' remuneration ('000') | ROE (%) | EAT ('000')  | Tobin's Q |
|-------------------------------|----------------|---------------------------------|---------|--------------|-----------|
| Agriculture                   | Mean           | 16,570.38                       | 15.92   | 315,645.13   | 0.89      |
|                               | N              | 13                              | 15      | 15           | 14        |
|                               | Std. Deviation | 15,414.11                       | 6.83    | 298,027.50   | 0.38      |
| Commercial & services         | Mean           | 59,879.89                       | 17.57   | 1,483,700.04 | 1.91      |
|                               | N              | 36                              | 46      | 46           | 47        |
|                               | Std. Deviation | 53,147.42                       | 20.27   | 3,407,087.30 | 1.03      |
| Financial & Investments       | Mean           | 71,079.95                       | 17.68   | 2,123,195.61 | 1.25      |
|                               | N              | 58                              | 66      | 66           | 66        |
|                               | Std. Deviation | 82,501.58                       | 8.64    | 2,085,003.42 | 0.24      |
| Industrial & allied           | Mean           | 61,116.56                       | 17.28   | 1,658,291.56 | 1.78      |
|                               | N              | 59                              | 75      | 75           | 75        |
|                               | Std. Deviation | 57,413.77                       | 12.48   | 2,246,665.80 | 1.17      |
| Alternative investment market | Mean           | 15,491.00                       | 5.20    | 20,066.78    | 0.92      |
|                               | N              | 8                               | 9       | 9            | 10        |
|                               | Std. Deviation | 3,481.87                        | 14.67   | 82,506.81    | 0.49      |
| Total                         | Mean           | 58,755.94                       | 16.86   | 1,600,323.49 | 1.54      |
|                               | N              | 174                             | 211     | 211          | 212       |
|                               | Std. Deviation | 64,880.99                       | 13.55   | 2,435,753.17 | 0.93      |

From the table 4.3 above, financial and investments sector recorded the highest level of Directors' remuneration at 71.1 million, followed by industrial and allied sector at 61.1 million. The sector with the least average directors' remuneration was alternative investments market segment with a mean Directors' remuneration of 15.5 million.

Financial and investments sector recorded the highest ROE at 17.68% followed by industrial and allied at 17.28% with the least performing, Alternative investments market segment recording a mean ROE of 5.2%.

Commercial and services sector had the highest mean of EAT at 2.1 billion followed by industrial and allied sector at 1.7 billion and the least performing was alternative investments market segment with a mean EAT of 20.1 million.

Similarly, Commercial and services sector had the highest mean Tobin's Q at 1.91 followed by industrial and allied sector at 1.78 and the least performing was alternative investments market segment with a mean Tobin's Q of 0.38.

An ANOVA test was used to determine if the differences in means for the different sectors was statistically significant. The table below shows the ANOVA test results.

**Table 4.4: Comparison of Means by sector ANOVA test**

|  |                           | Sum of Squares           | df  | Mean Square           | F     | Sig. |
|--|---------------------------|--------------------------|-----|-----------------------|-------|------|
| Directors' remuneration ('000') * Sector | Between Groups (Combined) | 47,293,279,076.28        | 4   | 11,823,319,769.07     | 2.934 | .022 |
|  | Within Groups             | 680,957,591,054.02       | 169 | 4,029,334,858.31      |       |      |
|  | Total                     | 728,250,870,130.31       | 173 |                       |       |      |
| ROE (%) * Sector                         | Between Groups (Combined) | 1,318.85                 | 4   | 329.71                | 1.823 | .126 |
|  | Within Groups             | 37,249.66                | 206 | 180.82                |       |      |
|  | Total                     | 38,568.51                | 210 |                       |       |      |
| EAT ('000') * Sector                     | Between Groups (Combined) | 66,152,634,760,051.30    | 4   | 16,538,158,690,012.80 | 2.888 | .023 |
|  | Within Groups             | 1,179,755,004,309,820.00 | 206 | 5,726,966,040,338.92  |       |      |
|  | Total                     | 1,245,907,639,069,870.00 | 210 |                       |       |      |
| Tobin's Q * Sector                       | Between Groups (Combined) | 26.36                    | 4   | 6.59                  | 8.687 | .000 |
|  | Within Groups             | 157.02                   | 207 | 0.76                  |       |      |
|  | Total                     | 183.37                   | 211 |                       |       |      |

From table 4.4 above, the differences in means across the sectors of Directors' remuneration, EAT and Tobin's Q are statistically ( $p < 0.05$ ). Only ROE does not have statistically significant differences in means by sector ( $p > 0.05$ ).

#### 4.4 Correlation analysis

The pooled data was subjected to Pearson correlation analysis for the dependent and the three independent variables and the results were as shown in the table below.

**Table 4.5: Correlation analysis**

|                                 |                     | Directors' remuneration ('000') | ROE (%) | EAT ('000') | Tobin's Q |
|---------------------------------|---------------------|---------------------------------|---------|-------------|-----------|
| Directors' remuneration ('000') | Pearson Correlation | 1                               |         |             |           |
|                                 | Sig. (2-tailed)     |                                 |         |             |           |
|                                 | N                   | 174                             |         |             |           |
| ROE (%)                         | Pearson Correlation | .349                            | 1       |             |           |
|                                 | Sig. (2-tailed)     | .000                            |         |             |           |
|                                 | N                   | 174                             | 211     |             |           |
| EAT ('000')                     | Pearson Correlation | .649                            | .391    | 1           |           |
|                                 | Sig. (2-tailed)     | .000                            | .000    |             |           |
|                                 | N                   | 174                             | 211     | 211         |           |
| Tobin's Q                       | Pearson Correlation | .336                            | .555    | .253        | 1         |
|                                 | Sig. (2-tailed)     | .000                            | .000    | .000        |           |
|                                 | N                   | 73                              | 210     | 210         | 212       |

From table 4.5 above, Directors' remuneration yielded positive statistically significant correlations with all the independent variables ( $p < 0.05$ ) with the strongest correlation being with EAT (0.649) followed by ROE (0.349) and the least correlation was with Tobin's Q at 0.336. These results partially confirm findings by Herdan et al (2011) who found a positive

correlation (0.020) between directors' remuneration and ROE and a positive correlation (0.035) between Tobin's Q and directors' remuneration.

The independent variables had positive statistically significant correlations with each other ( $p < 0.05$ ) with the strongest correlation being between Tobin's Q and ROE at 0.555 followed by ROE and EAT at 0.391 and EAT and Tobin's Q at 0.253.

#### 4.5 Regression analysis

The pooled data for the five years was subjected to bivariate linear regression for Directors' remuneration against each of the independent variables. The subsections below show the model results. Regression analysis was preferred since it is able to provide not only the relationship between two or more variables (whether positive or negative), but also information on the strength of the relationship (Johnson and Kuby, 2007). The bivariate regression analysis was applied separately for each of the three measures of firm performance. Similar past studies like Letting (2011) and Kesete (2012) have used the same approach.

##### 4.5.1 Regression analysis between Directors' Remuneration and ROE

To determine the relationship between directors' remuneration and firm performance, a bivariate linear regression was fitted to the data and the results were as shown in table 4.6 and 4.7 below.

**Table 4.6: Model summary for the regression between Directors' remuneration and ROE**

| Model | R    | Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|--------|-------------------|----------------------------|
| 1     | .349 | .121   | .116              | 60989.24317                |

From table 4.6 above, the R-square was 0.121 indicating that ROE explains 12.1% of the variability in directors' remuneration.

**Table 4.7: Coefficient estimates for the regression between Directors' remuneration and ROE**

| Model |            | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|-------|------|
|       |            | B                           | Std. Error | Beta                      |       |      |
| 1     | (Constant) | 30746.615                   | 7373.227   |                           | 4.170 | .000 |
|       | ROE (%)    | 1705.752                    | 349.771    | .349                      | 4.877 | .000 |

From table 4.7 above, the coefficient for ROE is 1705.75 indicating a positive relationship between the two variables while the standardized coefficient is 0.349. The coefficient for ROE is statistically significant in the model ( $p < 0.05$ ) indicating that ROE has a statistically significant relationship with Directors' remuneration. This means that, in addition to considering other factors, companies base their decision on directors' remuneration on ROE. This confirms the findings of Hassan et al. (2003) who found a positive but weak relationship between Directors' remuneration and firm performance in a study carried out using a sample of 100 listed companies in Malaysia. The weak relationship between directors' remuneration and ROE seems to contradict basic expectations that directors being the agents of shareholders should be rewarded proportionately to the extent they contribute towards improving shareholder wealth. Thus agency conflict might arise where firms pay high values of directors' remuneration while the companies have low returns on shareholder equity. However the inverse is not true.



#### 4.5.2 Regression analysis between Directors' Remuneration and EAT

To determine the relationship between directors' remuneration and firm performance (EAT), a bivariate linear regression was fitted to the data and the results were as shown in table 4.8 and 4.9 below.

**Table 4.8: Model summary for the regression between Directors' remuneration and EAT**

| Model | R    | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1     | .649 | .422     | .418              | 49480.69206                |

From table 4.8 above, the R-square was 0.422 indicating that ROE explains 42.2% of the variability in directors' remuneration suggesting the existence of a moderately strong positive relationship between the variables.

**Table 4.9: Coefficient estimates for the regression between Directors' remuneration and ROE**

| Model |             | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|-------------|-----------------------------|------------|---------------------------|--------|------|
|       |             | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant)  | 30475.446                   | 4521.770   |                           | 6.740  | .000 |
|       | EAT ('000') | .018                        | .002       | .649                      | 11.200 | .000 |

From table 4.8 above, the coefficient for EAT is 0.018 and the standardized coefficient is 0.649 indicating a positive linear relationship between the two variables. The coefficient for EAT is statistically significant in the model ( $p < 0.05$ ) indicating that EAT has a statistically significant relationship with Directors' remuneration. Compared to the standardized coefficient for ROE,

the standardized coefficient for EAT is higher indicating that EAT has a stronger relationship with Directors' remuneration.

These findings conform to findings by Kubo (2001) who found a strong positive relationship was found between Directors' remuneration and firm performance as measured by stock market returns for UK firms. The findings support the argument that directors should be rewarded according to the performance of the companies so as to minimize the agency conflict.

#### 4.5.3 Regression analysis between Directors' Remuneration and Tobin's Q

The study used regression analysis to examine the relationship between directors' remuneration and Tobin's Q (as a measure of firm performance). The results were as shown in table 4.10 and 4.11 below.

**Table 4.10: Model summary for the regression between Directors' remuneration and Tobin's Q**

| Model | R    | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1     | .336 | .113     | .108              | 61313.09977                |

From table 4.8 above, the Coefficient of determination was 0.113 indicating that ROE explains 11.3% of the variability in directors' remuneration with the rest being accounted for by other factors.

**Table 4.11: Coefficient estimates for the regression between Directors' remuneration and Tobin's Q**

| Model |            | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|-------|------|
|       |            | B                           | Std. Error | Beta                      |       |      |
| 1     | (Constant) | 23253.073                   | 8976.658   |                           | 2.590 | .010 |
|       | Tobin's Q  | 23019.642                   | 4927.605   | .336                      | 4.672 | .000 |

From table 4.11 above, the coefficient for Tobin's Q is 23,019.64 and the standardized coefficient is 0.336 indicating a positive linear relationship between the two variables. The coefficient for Tobin's Q is statistically significant in the model ( $p < 0.05$ ) indicating that Tobin's Q has a statistically significant relationship with Directors' remuneration. Compared to the standardized coefficient for ROE (0.349) and that of EAT (0.649), the standardized coefficient for Tobin's Q is the lowest indicating that Tobin's Q has the least relationship with Directors' remuneration among the three measures of firm performance.

This is quite understandable since Tobin's Q ratio is not a direct measure of a firm's short term performance but it does offer some insight on market and stock valuation. Thus the positive relationship with directors' remuneration indicates that higher valued firms pay higher remuneration. However, the relationship is weak indicating that other factors come into play in determining directors' remuneration.

When looking at the links between directors' compensation and market factor, Herdan et al (2011) noted that a positive correlation exists between Tobin's Q and directors' remuneration within UK companies. However, though positive, the relationship was weak which confirms the findings in the present study.

#### 4.5.4 Estimating the effect of firm size on the strength of the relationship between Directors' Remuneration and firm performance as measured by ROE, EAT and Tobin's Q

The study further sought to examine whether the strength of the relationship between firm performance and Directors' remuneration was influenced by the size of the firm. Stepwise regression analysis was applied and the effect of firm size was established by checking the change in R-Square and the significance of the change when firm size was introduced to the original models. Firm size was measured using natural log of sales as a proxy. The results for the three models were as shown in tables 4.12, 4.13 and 4.14 below.

**Table 4.12: Model summary for the estimation of effect of firm size on the relationship between Directors' remuneration and ROE**

| Model | R    | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     |     |               |
|-------|------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
|       |      |          |                   |                            | R Square Change   | F Change | df1 | df2 | Sig. F Change |
| 1     | .349 | .122     | .115              | 58436.25904                | .122              | 18.727   | 1   | 135 | .000          |
| 2     | .434 | .188     | .176              | 56398.23433                | .066              | 10.933   | 1   | 134 | .001          |

From table 4.12 above, the change in R-square is 0.066 indicating that firm size improves the model by 6.6%. The F-change is 10.933 and is statistically significant indicating that firm size significantly influences the relationship between directors' remuneration and ROE ( $P < 0.05$ ).

**Table 4.13: Model summary for the estimation of effect of firm size on the strength of the relationship between Directors' remuneration and EAT**

| Model | R    | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     |     |               |
|-------|------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
|       |      |          |                   |                            | R Square Change   | F Change | df1 | df2 | Sig. F Change |
| 1     | .667 | .445     | .441              | 46454.22413                | .445              | 108.256  | 1   | 135 | .000          |
| 2     | .670 | .449     | .441              | 46454.32033                | .004              | .999     | 1   | 134 | .319          |

From table 4.13 above, the change in R-square is 0.004 indicating that firm size accounts for 0.4% of the variability in the directors' remuneration. The F-change is 0.999 and is not statistically significant ( $P > 0.05$ ) indicating that firm size has no influence on the relationship between directors' remuneration and firm performance as measured by EAT.

**Table 4.14: Model summary for the estimation of effect of firm size on the strength of the relationship between Directors' remuneration and Tobin's Q**

| Model | R    | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     |     |               |
|-------|------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
|       |      |          |                   |                            | R Square Change   | F Change | df1 | df2 | Sig. F Change |
| 1     | .381 | .145     | .139              | 57661.79961                | .145              | 22.884   | 1   | 135 | .000          |
| 2     | .464 | .216     | .204              | 55434.33358                | .071              | 12.067   | 1   | 134 | .001          |

From table 4.14 above, the change in R-square is 0.216 indicating that firm size accounts for 21.6% of the variability in the directors' remuneration. The F-change is 12.067 and is statistically significant ( $P < 0.05$ ) indicating that firm size significantly influences the relationship between directors' remuneration and Tobin's Q.

The above findings suggest a positive influence of firm size on the relationship between directors' remuneration and firm performance as measured by ROE and Tobin's Q. This conforms to the findings by Ozkan (2007). However, firm size has little influence on the relationship between directors' remuneration and EAT. This could be due to the high correlation between firm size and EAT.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter is a synthesis of the entire research project and presents a summary of findings, conclusions and recommendations.

#### 5.2 Summary of findings

The study sought to establish the link between directors' remuneration and firm performance as measured by ROE, EAT and Tobin's Q. It further sought to establish the role of firm size in the hypothesized relationships.

It was established that all the four variables had wide dispersions indicating widely varying performance and remuneration levels among the companies listed in the NSE. ANOVA test revealed a significant difference in means of ROE, Tobin's Q and Directors' remuneration for the different sectors in the NSE. Correlation analysis yielded positive statistically significant correlations between Directors' remuneration and each of the measures of firm performance (ROE, EAT and Tobin's Q) with the correlation between Directors' remuneration and EAT being the strongest and that with Tobin's Q being the weakest.

The regression analysis results revealed that Directors' remuneration and firm performance as measured by ROE has a weak but positive relationship. This implies that the efficiency with which directors use shareholder funds to generate profit contributes to the level of directors' remuneration only to a small extent. Similarly, the regression between Directors' remuneration and Tobin's Q yielded a weak positive relationship. This means that market valuation does not

contribute much to determination of directors' remuneration. The regression analysis between Directors' remuneration and EAT was moderately strong. This was the strongest relationship between directors' remuneration and firm performance compared to the other two measures of performance. This suggests that companies in the NSE base their remuneration more on raw Earnings as opposed to other measures of performance which seek to evaluate the efficiency with which shareholder funds are being used.

Further analysis revealed that firm size influences the relationship between directors' remuneration as measured by ROE and Tobin's Q. However, firm size has little influence on the relationship between directors' remuneration and EAT. This could be due to the high correlation between firm size and EAT. This suggests that larger firms tend to pay higher values of director remuneration compared to smaller firms.

### **5.3 Conclusion**

The question has always been raised on how directors' remuneration is related to their input towards the performance of the company. Most studies have focused on trying to figure out the best method for remuneration that maximizes shareholder wealth. The present study has demonstrated the existence of a positive link between directors' remuneration and ROE, EAT and Tobin's Q as measures of firm performance. The study concludes that among Kenyan listed companies, directors' remuneration has a weak relationship with ROE and Tobin's Q, but a moderately strong positive relationship with EAT. The implication of this finding is that, among Kenyan listed companies, directors' remuneration is strongly linked to raw performance indicators as opposed to measures of efficiency of utilization of shareholder funds and market performance. These findings therefore point towards high possibility of agency problem since



directors can benefit themselves by maximizing raw earnings without due regard to long term performance and market performance.

#### **5.4 Recommendations**

The following policy recommendations and recommendations for further study were arrived at basing on the research findings and conclusions.

##### **5.4.1 Policy recommendations**

- i. NSE listed companies should seek to base their director remuneration on other indicators in addition to the raw forms of performance indicators
- ii. The Capital Markets Authority should ensure that corporate governance best practices applicable to listed companies include guidelines that ensure efficiency of utilization of shareholder funds and market growth.

##### **5.4.2 Limitations and recommendations for further study**

- i. The study only examined three forms of firm performance, future studies should consider adding other measures of firm performance to the models
- ii. The study considered firm size as the only control variable, while in reality other factors do come in determination of directors' remuneration. Future studies should examine the effects of other control variable such as proportion of institutional firm ownership, proportion of executive directors and board ownership.

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## **APPENDIX ONE: Companies under study**

### **Agriculture**

1. Rea Vipingo Ltd.
2. Sasini Tea & Coffee Ltd.
3. Kakuzi Ltd.

### **Commercial and Services**

1. Marshalls E.A. Ltd.
2. Car & General Ltd.
3. Kenya Airways Ltd.
4. CMC Holdings Ltd.
5. Nation Media Group Ltd.
6. TPS (Serena) Ltd.
7. Standard Group Ltd.

### **Finance and Investment**

1. Barclays Bank of Kenya Ltd.
2. Housing Finance Ltd.
3. Centum Investment Ltd.
4. Kenya Commercial Bank Ltd.
5. National Bank of Kenya Ltd.
6. Pan Africa Insurance Holdings Co. Ltd.
7. Diamond Trust Bank Ltd.
8. Jubilee Insurance Co. Ltd.
9. Standard Chartered Bank Ltd.
10. NIC Bank Ltd.

### **Industrial and Allied**

1. Athi River Mining Ltd.
2. BOC Kenya Ltd.
3. British American Tobacco Ltd.
4. E.A. Cables Ltd.
5. E.A. Breweries Ltd.
6. Sameer Africa Ltd.
7. Kenya Oil Ltd.
8. Mumias Sugar Company Ltd.
9. Unga Group Ltd.
10. Bamburi Cement Ltd.

11. Crown Berger (K) Ltd.
12. E.A. Portland Cement Co. Ltd.
13. Kenya Power & Lighting Co. Ltd.
14. Total Kenya Ltd.

#### **Alternative Investments Market**

1. Kapchorua Tea Co. Ltd.
2. Express Ltd.
3. Williamson Tea Kenya Ltd.